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| Breakout 8 Working with Students Who Are Struggling | | Grade |
| 90 min | Math Learning Goals   * I will use | Materials   * Posters with 4 movie titles * Mike’s handout of parallel tasks with common questions |
|  | 🡪  Four corners using movie titles: When you think about teaching algebraic concepts to students, which movie best represents how you feel? (Catch and Release, It’s A Wonderful Life, Sleepless in Seattle, Blind Side) Share in corner, and each corner shares out.  One Duck Stuck? | Professional  dialogue dialogue |
| Minds On… |
| 30 minutes |
|  | 🡪  (Background slides on parallel tasks for Nottawasaga)  Parallel Tasks: With a partner, decide who is going to do Option 1 and who is going to do Option 2. Assign the question from page 139 of Good Questions for Great Teaching K-8. Facilitators ask the common questions (p. 139)  Discuss the two options with your partner. How do you see this choice within the parallel task helping a struggling student?  Give the teachers Option 1 of the question from p. 141 of Good Questions for Great Teaching K-8. Teachers individually solve the question, and then create a second option in their journal. Identify one common question that would work for both options. Circulate around the room, comparing your option B and common questions with at least one person from each of the other tables. | afl  *Assessment* ***for*** *learning*  (inform future instruction) |
| Action! |
| 40 minutes |
|  | 🡪  Reading the Room (group discussion): What is our current practice when we are dealing with student misunderstandings as they relate to algebraic thinking? How have we differentiated in the past? How might your practice be different now? Use a placemat to allow for some individual thinking time then collaborating on what we see as being common to your group.  (Facilitators to use prompts such as “tell me more”, “talk more about that” to ensure depth of conversation.) |  |
| Consolidate Debrief |
| 20 minutes |
|  | Home Activity or Further Classroom Consolidation  Using tiles, have groups represent a variety of pairs of patterning rules such as: X 2 +1, X 7 +1, X 2 + 1, X 2 +8. Compare the effect of changing either the slope or the y-intercept. Could students use this strategy with any of the problems we have solved this week? When would it be helpful for students to understand this? |  |

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| Unit #: Day #: (Title) | | Grade |
| **Time Bar:**  Indicate the timing for each section. | Math Learning Goals   * Two or three math learning goals for this lesson. | Materials   * list materials required |
|  | Identify Grouping 🡪 Strategy  Get students mentally engaged in the first minutes of the class and establish a positive classroom climate, making every minute of the math class count for every student.   |  |  | | --- | --- | | *Connect to careers*  *Connect to other strands*  *Connect to previous lesson*  *Connect to student interest*  *Orient students to an activity*  *Orient students to materials* | *Develop interpersonal skills*  *Develop learning skills*  *Introduce a problem*  *Do a motivating activity*  *Pose a question*  *Reflect on prior learning*  *Connect to previous group of lessons* | | Plan links between assessment and instruction:  1) Identify what will be assessed (curriculum expectations or learning skills).  2) Choose an appropriate assessment strategy.  3) Choose an appropriate assessment scoring tool. |
| Minds On… |
|  |
|  | Identify Grouping 🡪 Strategy  **Students** domathematics: fearless talking and listening, reflecting, discussing, observing, investigating, representing, reasoning, selecting tools and computational strategies, developing understanding, valuing mathematics, constructing concepts, demonstrating concepts, applying concepts, discovering relationships, exploring, hypothesizing, building algorithmic skills, etc.  **Teachers** plan appropriate student groupings and strategies, pose questions to expose thinking, listen carefully, observe, offer prompts when necessary, respond to provide appropriate scaffolding and challenge, etc.  **NOTE: Icons in sidebar** ( e.g. di) **can be copied into your TIPS 2.0 template.** | Explicitly label:  afl *Assessment* ***for*** *learning*  (inform future instruction)  aal *Assessment* ***as*** *learning*  (reflection)  aol  *Assessment* ***of*** *learning*  (student achievement). |
| Action! |
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|  | Identify Grouping 🡪 Strategy  “Pull out the math,” check for conceptual understanding, and prepare students for the follow-up activity or the next lesson. Often this involves whole class discussion and sharing. Students listen to and contribute to reflections on alternate approaches, different solutions, extensions, and connections.  **Note:** Students should be well prepared to do mathematics individually after the three-part lesson. | diExplicitly identify planned differentiation of content, process, or product based on readiness, interest, or learning preference in order to work in zone of proximal development; save time; give students choice, …  Provide hyperlinks to:  Rationale/research rationale  Video classroom_video  Lesson artefacts student_work  Professional  dialogue dialogue |
| Consolidate Debrief |
|  |
| <Choose relevant label(s)>  Application  Concept Practice  Differentiated  Exploration  Reflection  Skill Drill | Home Activity or Further Classroom Consolidation  Provide meaningful and appropriate follow-up. Choose activities that consolidate understanding, build confidence in doing mathematics independently, help parents see the types of math activities students engage in during class and see connections between the mathematics being taught and life beyond the classroom. Give students some choice through differentiated activities. | Your plan should include activities that are:  visual  kinesthetic  auditory |



For an annotated example, please see *Mathematics GAINS –Professional Learning Series Facilitator’s Guide*, pdf, page 5